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EXAMINER
HAILU, TADESSE

ART UNIT	PAPER NUMBER
2173	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/997,773	LOYENS ET AL.	
	Examiner	Art Unit	
	Tadesse Hailu	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28,30-38 and 40-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28,30-38 and 40-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Amendment filed on January 12, 2007 for the above-identified application.

2. The pending claims 1-28, 30-38, and 40-47 are examined herein as follows.

3. The PETITION FOR EXTENSION OF TIME submitted on January 12, 2007 is considered and entered

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 11-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The

claimed "*each displayed classifier label is displayed only once is each displayed hierarchy*." Is not shown in the description. Thus, the above claims fails to comply with the written description requirement.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 11, 18, 22, 28, 38, and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Roberge et al (US Pat No. 6,154,750).

With regard to claim 1:

Roberge discloses a method and system for navigating hierarchical database views that supports the efficient entry, review, and updating of data using a navigation display that is clear and efficient--yet compact in terms of the screen area used. At any point in the navigation process, the navigation display consists of buttons corresponding to the nodes that lie along the path to the last node visited (the set of previously made choices) and the children of this node (the set of current choices) (Abstract).

A user interface (e.g., **Fig. 7**) for displaying database shown labeled/classified within appropriate categories 73 (e.g., **73, Fig. 7**) organized with multiple hierarchy levels.

Roberge also discloses that the user interface includes a root node navigation bar (**72, Fig. 7**) representing a root hierarchy level of the multiple hierarchy levels; and

Roberge also discloses that the user interface includes multiple sub-node navigation bars (**74, Fig. 7**) stacked below the root node navigation bar, each sub-node navigation bar representing a sub-node from a selected level of the multiple hierarchy levels, wherein multiple sub-nodes represent database classifiers of database objects and a plurality of sub-nodes in the multiple hierarchy levels represent the same database classifier representing the same database object;

Roberge also describes that the sub-node navigation bars (**74, Fig. 7**) display sub-nodes on a path from the root hierarchy level to the one or more sub-nodes having the lowest selected hierarchy level, wherein the user interface hides (or culled) siblings of the displayed sub-nodes for the hierarchy levels between the root level and the hierarchy level of the one or more sub-nodes having the lowest selected hierarchy level (Abstract, Fig. 7), and each displayed sub-node represents a distinct classifier in the path (column 6, lines 7-41).

With regard to claim 11:

Roberge discloses a method for presenting database classifiers organized by hierarchy levels (e.g., **Fig. 7, Fig. 8, Fig. 9 etc**).

Roberge also discloses that the method includes displaying a first hierarchy level having a first hierarchy database classifier label (**Cardiac, Fig. 7**).

Roberge also discloses that the method includes displaying a second hierarchy level having multiple second hierarchy database classifier labels (**Symptoms, Tests, Labs, and Medications, Fig. 7**).

Roberge also discloses that the method includes activating one of the second hierarchy database classifier labels (e.g., activating **Tests, Fig.8**).

Roberge also discloses that the method includes displaying information associated with the activated database classifier label (**Cath, Echo, Stress, Fig. 8**). Roberge also discloses a third hierarchy level having multiple third hierarchy database classifier labels (**Fig. 9**).

Roberge also discloses that the method includes hiding (culling) display of the inactivated second hierarchy database classifier labels (during activation of Echo, hiding **Cath, and Stress,** see **Fig. 9).**

Roberge also discloses that the multiple database classifier labels (e.g., **Cardiac, Symptoms, Tests, Labs,** and **Medications**) represent database objects and a plurality of database classifier labels in multiple hierarchy branches are the same database classifier label representing the same database object and each displayed classifier label is displayed only once in

each displayed hierarchy (as shown in each user interface Figs. **7-19b**, each classifier label is displayed only once in each hierarchy)

With regard to claim 18:

Roberge also discloses a computer system (column 1, lines 7-10) including a database having information classified by non-homogeneous classifiers organized as a root node **(Cardiac)** and multiple sub-nodes **(Symptoms, Tests, Labs,** and **Medications, Fig. 7**).

Roberge also discloses that the computer system includes a display operable to present a user interface (**Fig. 7, Fig. 8**).

Roberge also discloses that the computer system includes a control interfaced with the database and the display (see intractable elements **71-75, in Fig. 7**).

Roberge also discloses that the computer system includes the control (**Fig. 7**) operable to generate a user interface for presentation on the display (**Fig. 7),** the user interface having the root node (**Cardiac**) and predetermined sub-nodes **(Symptoms, Tests, Labs,** and **Medications, Fig. 7**) stacked from highest to lowest hierarchy levels, the user interface further operable to hide (**Fig. 8**) predetermined sub-nodes **(**hiding **Symptoms, Labs,** and **Medications** when **Tests** is activated, **Fig. 8**) that are not relevant to the sub-node having the lowest hierarchy level, wherein multiple sub-nodes represent database classifiers of database objects a plurality of sub-nodes in the multiple hierarchy levels are the same database classifier representing the same database object,

and each displayed sub-node represents a distinct classifier (as shown in each user interface Figs. **7-19b**, each node is identified by its label or function name and classified accordingly).

With regard to claim 22:

Roberge also discloses a program product for displaying hierarchy levels of database classifiers that organize the database classifiers with multiple nodes (e.g., a root node **(Cardiac)** and sub-nodes **(Symptoms, Tests, Labs,** and **Medications, Fig. 7**).

Roberge also discloses that the program product includes a storage medium that stores computer readable instructions (column 5, lines 42-48).

Roberge also discloses that the program product includes instructions stored on the storage medium, the instructions operable to command a computer to display selected nodes from first, second or third hierarchy levels (e.g., the three hierarchical level of Fig. **9**), the instructions selecting for display the nodes of the first and second hierarchy levels display only the nodes of the first (**Cardiac, Fig. 9**) and second hierarchy levels (**Tests, Fig. 9**) on a traversed path to the third hierarchy level (as indicated by **93**, **Fig. 9**), wherein multiple nodes represent database classifiers of database objects, a plurality of nodes in the hierarchy levels represent the same database classifier representing the same database object, and each displayed node represents a distinct classifier (as shown in each user interface Figs. **7-19b**, each node is identified by its label or function name and classified accordingly).

With regard to claim 28:

Roberge also discloses an electronic display of database classifiers organized with multiple hierarchy levels (e.g., **Figs. 7-10**).

Roberge also discloses that the electronic display includes a visual representation of a tree data structure having a root node (**Cardiac, Fig. 7)** and multiple descendant nodes **(Symptoms, Tests, Labs,** and **Medications, Fig. 7**).

Roberge also discloses that the electronic display includes a visual representation of an index of data (Fig. 9, **choices 93**) associated with a selected descendant node (Fig. 9, **Left Ventricle**).

Roberge also discloses that the visual representation of the tree data structure displays the descendant nodes on the traversed path from the root node to the selected descendant node and conceals siblings (**Symptoms, Labs,** and **Medications,** and in the immediate level **Right ventricles** and **Cadiomyopathy are** hidden, Fig. 9) of the descendant nodes on the traversed path (**Fig. 9**).

Roberge also discloses that the multiple descendant nodes represent database classifiers of database objects, a plurality of descendant nodes in the multiple hierarchy levels represent the same database classifier representing the same database object, and each displayed node represents a distinct classifier (as shown in each user interface Figs. **7-19b**, each node is identified by its label or function name and classified accordingly).

With regard to claim 38:

Roberge also discloses a combination tree data structure **(e.g., path 91 in Fig. 9)** and index **(e.g., choices 93 In Figs. 9)** capable of electronic visual display of database classifiers organized by hierarchy levels.

Roberge also discloses that the combination tree data structure and index includes a tree data structure having one or more nodes associated with each hierarchy level (**Fig. 7**).

Roberge also discloses that the combination tree data structure and index includes an index of selected information associated with a selected one of the nodes (see **103** in Fig. **10** or **Fig. 11**), the index having a plurality of indices (**Fig. 10 or 11**), each of the plurality of indices capable of displaying predetermined parts of the selected information (column 7, lines 8-22).

Roberge also discloses that the siblings of the selected node and the siblings of ancestors of the selected node are not displayed (the rest of sibling - that was shown in Fig. 7) are not displayed.

Roberge also discloses that multiple sibling nodes represent database classifiers of database objects, a plurality of sibling nodes in the hierarchy levels represent the same database classifier representing the same database object, and the selected node, the ancestors of the selected node, and any children of the selected node represent distinct classifiers (as shown in each user interface Figs. **7-19b**, each node is identified by its label or function name and classified accordingly).

With regard to claim 43:

Roberge also discloses a method of electronically displaying database classifiers organized by hierarchy levels **(Fig. 7, 8, 9, 10, 11, etc)**.

Roberge also discloses the method includes displaying a tree structure having a plurality of nodes representing database classifiers (**Fig. 7 or 8**).

Roberge also discloses that the method includes selecting a node (e.g., **Tests**, Fig. 8).

Roberge also discloses that the method includes displaying the tree structure with only the selected node and the direct ancestors of the selected node (see **Fig. 8**), wherein the displayed tree structure represents distinct database classifiers (as shown in each Figure each node in the tree is distinctively labeled, Fig. 7).

Roberge also discloses that the method includes displaying an index associated with the selected node (**Fig. 9, 10 or 11**), the index having a plurality of indices, each of the plurality of indices having associated information representing a database object (see **Fig. 9, 10 or 11**).

Roberge also discloses that the multiple sibling nodes **(e.g., Symptoms, Tests, Labs,** and **Medications, Fig. 7)** represent database classifiers of database objects a plurality of sibling nodes in the hierarchy levels represent the same database classifier representing the same database object (as shown in each Figure each node in the tree is distinctively labeled, Fig. 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 2, 4, 6, 11, 17, 18, 19, 22-28, 30-34, 37-38, 41-45, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (US Pat No 6,236,400) in view of Bernhardt et al (US Pat No 6,496,208).

The present invention, Guerrero is directed to a system and method for presenting information organized by hierarchical levels through the computer user interface. Likewise Bernhardt is also directed to a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented.

With regard to claim 1:

Guerrero discloses a user interface (vertical browser, **502,** Figs. 5, and 6A-F) for displaying information organized with multiple hierarchy levels (column 6, lines 27-46).

The user interface (vertical browser) further includes a root node navigation bar (**608A,** Figs. 6A, 6B, 6D, and 6E) representing the root hierarchy level (column 7, lines 18-25).

The user interface also includes multiple sub-node navigation bars (**608B, 608C**, Fig. 6B) stacked below the root node navigation bar, each sub-node navigation bar representing a sub-node from a selected level of the multiple hierarchy levels (column 8, lines 12-21;

Furthermore, Guerrero describes that hierarchical information is displayed efficiently such that information that is no longer needed is not displayed (column 3, lines 38-47). The vertical browser displays the user's traveled path, that is the user navigation path from the root node level to the one or more sub-nodes or sub levels (e.g., selected paths from *Root node (/) to Pipeplus, Pmail, and Resource* are shown) (Fig. 6C). During the navigation and selection of the hierarchical tree (with a plurality of sub-node), the vertical browser only displays the traveled paths (or selected sub-nodes) excluding or removing all irrelevant sub-nodes, such as hiding all siblings of selected sub-nodes throughout the navigation (from root toward the lowest selected level) (column 3, lines 48-column 4, lines 29, column 8, lines 5-52, Figs. 6A-E).

In one embodiment, Guerrero describes that the vertical browser is described with reference to displaying hierarchical file system. In another embodiment, Guerrero describes that his invention is implemented in an object-oriented programming environment. In the later embodiment, Guerrero

describes a hierarchy of classes of information. Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe displaying database classifiers as recited in claim 1. Guerrero also fails to describe that each displayed sub-node represents a distinct classifier in the path.

However, Bernhardt discloses a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented. Bernhardt further discloses that the method of his invention is used for displaying structure of a database classifier, which organizes data in a tree (Abstract). Bernhardt further discloses that each displayed sub-node represents a distinct classifier or different category that satisfy the logic leading to a particular node of the data structure (column 3, lines 28-41).

Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between node and sub-node. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41).

Bernhardt and Guerrero are analogous art because they are from the same field of endeavor, organizing and representing information in a hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the displaying of database classifiers in place of hierarchical file system display of Guerrero because Guerrero suggests that his invention can be used to display any type of hierarchical information (Guerrero, col. 6, lines 38-46). The suggestion/motivation for doing so would have been to allow a user to better visualize and navigate a data structure derived from a data source such as a large database stored on multiple (possibly distributed) memory devices (column 4, lines 11-14).

Therefore, it would have been obvious to combine Bernhardt with Guerrero to obtain the invention as specified in claim 1.

With regard to claim 2:

Guerrero in view of Bernhardt further discloses that the user interface (vertical browser 502) further includes information associated with a sub-node (e.g., *Pipeplus, Pmail* and *Resource),* the sub-node having the lowest selected hierarchy level. For example, as illustrated in Figs. 6A, 6B and 6C, the choices list **506** includes information associated with *Pipeplus, Pmail* and *Resource,* respectively (column 8, lines 5-63).

With regard to claim 4:

As illustrated in Figs. 6A-E, Guerrero in view of Bernhardt further discloses that one or more of the navigation bars is operable to select display of labels for nodes from the root node to sub-nodes having a hierarchy level one

level lower than the node associated with the selected navigation bar (column 7, lines 18-44, column 8, lines 5-52).

With regard to claim 6:

As illustrated in Guerrero, Figs. 5, and 6A-E, Guerrero in view of Bernhardt discloses a vertical browser user interface.

With regard to claim 11:

As illustrated in Guerrero, Fig. 7A-B, Guerrero discloses a method for presenting information organized by hierarchy levels (also illustrated in Figs. 6A-E).

The method also includes displaying a first hierarchy level having a first hierarchy label (Root node (/), Fig. 6A).

The method also includes displaying a second hierarchy level having multiple second hierarchy labels (*Pipeplus, Pmail,* and *Resource*, Figs. 6C).

The method also includes activating one of the second hierarchy labels (column 9, lines 12-23).

The method also includes displaying information associated with the activated Label. For example, as illustrated in Figs. 6A, 6B and 6C, the choices list **506** includes information associated with *Pipeplus, Pmail* and *Resource,* respectively (column 8, lines 5-63).

The method further includes hiding display of activated second hierarchy labels (column 3, lines 48-column 4, lines 29, column 8, lines 5-52, Figs. 6A-E).

Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe displaying database classifiers as recited in claim 11. Guerrero also does not describe each displayed classifier label is displayed only once in each displayed hierarchy.

However, Bernhardt discloses a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented. Bernhardt further discloses that the method of his invention is used for displaying structure of a database classifier, which organizes data in a tree (Abstract). Bernhardt further discloses that each displayed sub-node represents a distinct classifier or different category or label that satisfy the logic leading to a particular node of the data structure (column 3, lines 28-41).

As described in col. 7, lines 2-41, Bernhardt describes that the database classifier uses different attributes of each node and sub-node such as score, color coding to indicate similarity or relation between the nodes or sub-nodes (See darker color in Fig. 5).

Bernhardt and Guerrero are analogous art because they are from the same field of endeavor, organizing and representing information in a hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the displaying of database classifiers in

place of hierarchical file system display of Guerrero because Guerrero suggests that his invention can be used to display any type of hierarchical information (Guerrero, col. 6, lines 38-46). The suggestion/motivation for doing so would have been to allow a user to better visualize and navigate a data structure derived from a data source such as a large database stored on multiple (possibly distributed) memory devices (column 4, lines 11-14).

Therefore, it would have been obvious to combine Bernhardt with Guerrero to obtain the invention as specified in claim 11.

With regard to claim 17:

As illustrated in Figs. 6A-E, Guerrero in view of Bernhardt discloses the navigational bars (Guerrero, 610A-F) are placed one bar on top of the other bar as a stacked box metaphor.

With regard to claim 18:

Guerrero discloses a file system (database) that allows a user to categorize or group files. For example, Fig. 1 provides an example of a non-homogeneous hierarchical file structure 102 that groups files into directories. Root 104 includes documents directory 106, applications directory 107, system directory 108 and root-level files 105 (Guerrero, column 1, lines 11-34).

Guerrero further discloses a vertical browser that is used to display hierarchical information (column 6, lines 39-46).

As illustrated in Fig. 4, Guerrero discloses a computer system including a CPU 413 (control) interfaced with a mass storage 412 (database) and the CRT 417 (display). The system generates interface (vertical browser) for presentation on the display (Figs. 6A-E).

The browser 502 includes a path list 504 that initially displays the root level of the file system hierarchy and choices list 506 that displays the root level's children. Furthermore, Guerrero describes that hierarchical information is displayed efficiently such that information that is no longer needed is not displayed (column 3, lines 38-47). As a choice is selected from choices list 506, it is added to path list 504 and the children of the choice are displayed in choices list 506. The browser further operable to hide child nodes of a selected node that is not relevant to the selected node having the lowest hierarchy level. As illustrated in FIGS. 6A-6D, only the selected path are displayed in the path list 504 the child nodes of the selected node are hidden form display.

Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe displaying database classifiers. Guerrero also fails to describe that each displayed sub-node represents a distinct classifier as recited in claim 18.

However, Bernhardt discloses a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented. Bernhardt further discloses that the method of his

invention is used for displaying structure of a database classifier, which organizes data in a tree (Abstract). Bernhardt further discloses that each displayed sub-node represents a distinct classifier or different category that satisfy the logic leading to a particular node of the data structure (column 3, lines 28-41).

Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41).

Bernhardt and Guerrero are analogous art because they are from the same field of endeavor, organizing and representing information in a hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the displaying of database classifiers in place of hierarchical file system display of Guerrero because Guerrero suggests that his invention can be used to display any type of hierarchical information (Guerrero, col. 6, lines 38-46). The suggestion/motivation for doing so would have been to allow a user to better visualize and navigate a data structure derived from a data source such as a large database stored on multiple (possibly distributed) memory devices (column 4, lines 11-14).

Therefore, it would have been obvious to combine Bernhardt with Guerrero to obtain the invention as specified in claim 18.

With regard to claim 19:

Guerrero in view of Bernhardt further discloses that the vertical browser (user Interface) further having predetermined information (see Figs. 6A-E) stacked below the sub-node having the lowest hierarchy Level (Figs. 6A-E), the predetermined information associated with the sub-node having the lowest hierarchy level (Guerrero, column 8, lines 22-52).

With regard to claim 22:

Guerrero discloses a program product for displaying hierarchy levels that organize information with multiple nodes (Figs. 6A-E).

Guerrero further discloses a storage medium (Fig. 4, 412) that stores computer readable instructions (column 1, lines 12-21).

Guerrero further discloses instructions (process flow of Figs 7A-B) stored on the storage medium, the instructions operable to command a computer to display selected nodes from first, second or third hierarchy levels (column 9, lines 1-67), the instructions selecting for display the nodes of the first and second hierarchy levels display only the nodes of the first and second hierarchy levels on a traversed path to the third hierarchy level (column 8, lines 53-63, column 9, lines 1-67),

Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe

displaying database classifiers. Guerrero also fails to describe that each displayed node represents a distinct classifier as recited in claim 22.

However, Bernhardt discloses a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented. Bernhardt further discloses that the method of his invention is used for displaying structure of a database classifier, which organizes data in a tree (Abstract). Bernhardt further discloses that each displayed node or sub-node represents a distinct classifier or different category that satisfy the logic leading to a particular node of the data structure (column 3, lines 28-41).

Bernhardt and Guerrero are analogous art because they are from the same field of endeavor, organizing and representing information in a hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the displaying of database classifiers in place of hierarchical file system display of Guerrero because Guerrero suggests that his invention can be used to display any type of hierarchical information (Guerrero, col. 6, lines 38-46). The suggestion/motivation for doing so would have been to allow a user to better visualize and navigate a data structure derived from a data source such as a large database stored on multiple (possibly distributed) memory devices (column 4, lines 11-14).

Therefore, it would have been obvious to combine Bernhardt with Guerrero to obtain the invention as specified in claim 22.

With regard to claim 23:

Guerrero in view of Bernhardt further discloses that the first hierarchy level comprises the root node (see Guerrero, Fig. 4, column 7, lines 10-16).

With regard to claim 24:

Guerrero in view of Bernhardt further discloses that the second hierarchy level comprises multiple nodes (see Figs. 4, and 6A-E), the instructions commanding the computer to display the one of the multiple nodes of the second hierarchy level on the traversed path to the third hierarchy level and to hide the sibling nodes of the displayed node (Guerrero, column 3, lines 38-47, column 8, lines 53-63).

With regard to claim 25:

Guerrero in view of Bernhardt further discloses that the third hierarchy level comprises information associated with a selected one of the nodes of the second hierarchy level. For example, the transition from Fig. 6A to Fig. 6B illustrates that the third hierarchy level, *Pmail* comprises information associated with a selected one of the nodes *(see Fig. 6A)* of the second hierarchy level, which is *Pipeplus*.

With regard to claim 26:

Guerrero in view of Bernhardt further discloses comprising multiple indices that organize the information of the third hierarchy level according to

one or more attributes. As shown in Guerrero, Fig. 6C, 610A-E are multiple choices list or indices that organize the information of the third hierarchy level according to one or more attributes (such as file type).

With regard to claim 27:

Guerrero in view of Bernhardt further discloses the third hierarchy level (e.g., Resource, Fig. 6C) comprises multiple nodes (e.g., rescom, rquotes.r, winpmdde, etc), the instructions further operable to accept a selection of one of the multiple nodes (see highlighted rquotes.r in choices list 506) of the third hierarchy level and to hide or remove the sibling nodes (e.g., rescom, winpmdde, etc) of the selected third hierarchy level node (column 3, lines 38-47, column 8, lines 22-63).

With regard to claim 28:

Guerrero discloses an electronic display of data (vertical browser 502); the electronic display includes among other things a visual representation of a tree data structure having a root node (Fig. 6B, 608A) and multiple descendant nodes (Fig. 6B, 60bB-C); and Guerrero further discloses a visual representation of an index of data associated with a selected descendant node (Fig. 6B, 610B) (column 8, lines 12-21).

Guerrero further discloses that the visual representation of the tree data structure displays the descendant nodes on the traversed path from the root node to the selected descendent node and conceals siblings of the descendant

nodes on the traversed path (column 3, lines 48-column 4, lines 29, column 8, lines 5-52, Figs. 6A-E).

Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe displaying database classifiers. Guerrero also fails to describe that each displayed node represents a distinct classifier as recited in claim 28.

However, Bernhardt discloses a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented. Bernhardt further discloses that the method of his invention is used for displaying structure of a database classifier, which organizes data in a tree (Abstract). Bernhardt further discloses that each displayed node or sub-node represents a distinct classifier or different category that satisfy the logic leading to a particular node of the data structure (column 3, lines 28-41). Bernhardt also describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41).

Bernhardt and Guerrero are analogous art because they are from the same field of endeavor, organizing and representing information in a hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the displaying of database classifiers in place of hierarchical file system display of Guerrero because Guerrero suggests that his invention can be used to display any type of hierarchical information (Guerrero, col. 6, lines 38-46). The suggestion/motivation for doing so would have been to allow a user to better visualize and navigate a data structure derived from a data source such as a large database stored on multiple (possibly distributed) memory devices (column 4, lines 11-14).

Therefore, it would have been obvious to combine Bernhardt with Guerrero to obtain the invention as specified in claim 28.

With regard to claim 30:

Guerrero in view of Bernhardt further discloses that the descendant nodes on the traversed path are selectable to display child nodes of the selected node (Guerrero, Figs. 6A-E, column 8, lines 12-21, 53-63).

With regard to claim 31:

Guerrero in view of Bernhardt further discloses that the descendant nodes on the traversed path are selectable to display sibling nodes of the selected node (Guerrero, Figs. 6A-E, column 8, lines 12-21, 53-63).

With regard to claim 32:

Guerrero in view of Bernhardt further discloses that the index comprises a visual representation of data (Guerrero, Figs. 6A-E).

With regard to claim 33:

Guerrero in view of Bernhardt further discloses that the data nodes represent non-homogeneous classifiers (e.g. different information groups, Guerrero, Fig.4) and the index (e.g. as shown in Fig. 4, all 114-116 are all document type), which represents a homogeneous attribute (all leaf nodes 114-116 are documents).

With regard to claim 34:

Guerrero in view of Bernhardt further discloses that the data is organized according to one or more document type attributes (Guerrero, Fig. 4).

With regard to claim 37:

Guerrero in view of Bernhardt further discloses that the root node (/) and descendent nodes (*Pipeplus, Pmail, Resource, and rquotes.r*) are stacked in hierarchy level order (e.g. Guerrero, Fig. 6D).

With regard to claim 38:

Guerrero discloses a combination tree data structure (Figs. 6A-E) and index (the leaf nodes) capable of electronic visual display of information organized by hierarchy levels (Figs. 6A-E).

Guerrero further discloses a tree data structure having one or more nodes associated with each hierarchy level (Figs. 6A-E).

Guerrero further discloses an index of selected information (e.g. Resource of Fig. 6B) associated with a selected one of the nodes (e.g. Pmail of Fig. 6B), the index having a plurality of indices (that is selecting *Resource* index results in displaying a plurality of indices, such as r*escom, rquotes.r, winpmdde*, etc of

Fig. 6C), each indices capable of displaying predetermined parts of the selected information (e.g. selecting rquotes.r, as shown in Fig. 6C, may display data associated with the index).

Guerrero further discloses that the siblings of the selected node and the siblings of the ancestors of the selected node are not displayed (column 3, lines 48-column 4, lines 29, column 8, lines 5-52, Figs. 6A-E).

Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe displaying database classifiers. Guerrero does not clearly describe the selected node, the ancestors of the selected node, and any children of the selected node represent distinct classifier as recited in claim 38.

However, Bernhardt discloses a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented. Bernhardt further discloses that the method of his invention is used for displaying structure of a database classifier, which organizes data in a tree (Abstract). Bernhardt further discloses that each displayed node and sub-node represents a distinct classifier or different category that satisfy the logic leading to a particular node of the data structure (column 3, lines 28-41).

Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or

between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41).

Bernhardt and Guerrero are analogous art because they are from the same field of endeavor, organizing and representing information in a hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the displaying of database classifiers in place of hierarchical file system display of Guerrero because Guerrero suggests that his invention can be used to display any type of hierarchical information (Guerrero, col. 6, lines 38-46). The suggestion/motivation for doing so would have been to allow a user to better visualize and navigate a data structure derived from a data source such as a large database stored on multiple (possibly distributed) memory devices (column 4, lines 11-14).

Therefore, it would have been obvious to combine Bernhardt with Guerrero to obtain the invention as specified in claim 38.

With regard to claim 41:

Guerrero in view of Bernhardt further discloses that the hierarchy levels correspond to different category of information (non-homogeneous classifiers) of the information (Guerrero, column 1, lines 28-42).

With regard to claim 42:

Guerrero in view of Bernhardt further discloses that the indices correspond to one or more homogeneous attributes of the information (e.g. as shown in Guerrero, Fig. 4, all 114-116 are all document type), which represents a homogeneous attribute (all leaf nodes 114-116 are documents).

With regard to claim 43:

Guerrero discloses a method (Figs. 7A-B) of electronically displaying information.

The method includes among other things displaying a tree structure having a plurality of nodes (column 6, lines 52-63).

The method also includes selecting a node (column 7, lines 35-44, Figs. 6A-E).

The method also includes displaying an index associated with the selected node, the index having a plurality of indices (that is, selecting *Resource* index results in displaying a plurality of indices, such as r*escom, rquotes.r, winpmdde*, etc of Fig. 6C),

Guerrero further discloses displaying the tree structure with only the selected node and the direct ancestors of the selected node (column 3, lines 48-column 4, lines 29, column 8, lines 5-52, Figs: 6A-E).

Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe displaying database classifiers. Guerrero also does not describe the displayed tree structure represents distinct database classifiers as recited in claim 43.

However, Bernhardt discloses a method and apparatus for displaying and navigating data organized in the form of a graph structure (hierarchy or network) is presented. Bernhardt further discloses that the method of his invention is used for displaying structure of a database classifier, which organizes data in a tree (Abstract). Bernhardt further discloses that each displayed tree node or sub-node represents a distinct classifier or different category that satisfy the logic leading to a particular node of the data structure (column 3, lines 28-41).

Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41).

Bernhardt and Guerrero are analogous art because they are from the same field of endeavor, organizing and representing information in a hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the displaying of database classifiers in place of hierarchical file system display of Guerrero because Guerrero suggests that his invention can be used to display any type of hierarchical information (Guerrero, col. 6, lines 38-46). The suggestion/motivation for doing so would

have been to allow a user to better visualize and navigate a data structure derived from a data source such as a large database stored on multiple (possibly distributed) memory devices (column 4, lines 11-14).

Therefore, it would have been obvious to combine Bernhardt with Guerrero to obtain the invention as specified in claim 43.

With regard to claim 44:

As illustrated in path list 504 (Figs. 6A-E), Guerrero in view of Bernhardt further discloses that only the selected path nodes and the direct ancestors of the selected node are shown or display (Guerrero, column 8, lines 53-63).

With regard to claim 45:

As illustrated in Figs. 6A-E, Guerrero in view of Bernhardt further discloses that the navigational bars (Guerrero, 610A-F) are placed one bar on top of the other bar as a stacked box metaphor.

With regard to claim 47:

Guerrero in view of Bernhardt further discloses that the vertical browser display a file system **102** that allows a user to categorize or group files. As illustrated in **Figs. 6A-F**, a representation of hierarchical file structure is grouped vertically into several different (non-homogeneous) directories and the directories includes uniform (homogeneous) child documents or leaf nodes (index) (Guerrero, column 6, lines 27-46).

4. Claims 5, 8-10, 15, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (US Pat No 6,236,400) in view of Bernhardt et al (US Pat No 6,496,208) further in view of Chittu et al (US Pub No 2002/0107892).

With regard to claim 5:

While Guerrero in view of Bernhardt discloses Object-oriented programming languages including C++, Objective C and the Java TM (column 11, lines 1-5), but Guerrero in view of Bernhardt does not disclose that the user interface or the vertical browser 502 is implemented with one of Win32, JavaSwing or DHTML. On the other hand, Chittu discloses DHTML controls that are rendered on the screen using CSS layers in combination with HTML < DIV> tags (see paragraph [0081]).

Chittu, Guerrero and Bernhardt are analogous art because they are from the same field of endeavor that is manipulating hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the dynamic HTML (DHTML) controls as specified by Chittu with the object-oriented programming language of Guerrero in view of Bernhardt.

The motivation/suggestion for doing so would have been to provide the Internet application (vertical browser) its own unique look and feel. This enables a software vendor to standardize the look and feel of all of the controls

in its applications products. DHTML provides the ability to define a standard look and feel on an Internet platform (Chittu, paragraph [0079]).

Therefore, it would have been obvious to combine Guerrero in view of Bernhardt with Chittu to obtain the invention of claim 5.

With regard to claim 8:

Guerrero in view of Bernhardt discloses a navigational bar (Figs. 6A-E). Guerrero in view of Bernhardt also discloses that the navigation bar is selectable as illustrated via a position indicator, or marquee 622 (e.g., a dotted line marquee, is used to indicate the current position of the "cursor". But Guerrero in view of Bernhardt does not show that an activation icon operable to display the hierarchy level associated with the sub-node of the navigation bar.

Chittu, on the other hand discloses a dynamic tree control system. The dynamic tree control system includes among other things, one or more tree node layers. Each tree node layer in turn can contain a collapser layer 46 (activation icon), a node icon layer, and a caption on label layer (Chittu, Fig. 3). The collapser layer 46 when activated displays the hierarchy level associated with the sub-node of the navigation bar (see paragraphs [0087]).

Chittu, Guerrero and Bernhardt are analogous art because they are from the same field of endeavor that is manipulating hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the collapser layer (activation icon) of

Chittu with path list 504 of the hierarchy tree as specified by Guerrero in view of Bernhardt.

The motivation/suggestion for doing so would have been to save space during display of hierarchical application. That is, since hierarchical nodes are represented with a collapser layer (+/-), and since unselected intermediate node (siblings) are not displayed, the hierarchical application can be displayed in a minimum display area (Chittu, [0003]).

Therefore, it would have been obvious to combine Guerrero in view of Bernhardt with Chittu to obtain the invention of claim 8.

With regard to claim 9:

Guerrero in view of Bernhardt further in view of Chittu discloses that the collapser layer (+/-) 46 (activation icon) (Fig. 3) is further operable to display sub-nodes of the activated icon. The collapser layer has a collapsing and expanding (+/-) function, wherein when a higher node is expanded associated lower nodes or sub-nodes will be shown (see Chittu, paragraph [0027], [0087]).

With regard to claim 10:

Guerrero in view of Bernhardt further in view of Chittu discloses that the activation icon is further operable to hide sibling nodes of the activated icon (see Chittu, paragraph [0027], [0087]).

With regard to claim 15:

Guerrero in view of Bernhardt further discloses that activation of the second hierarchy label displays the third hierarchy level having multiple third

hierarchy labels (Figs. 6A-E). For example, activating Pipeplus (2nd hierarchical level after the root node) will display Pmail (the 3rd hierarchical level).

Guerrero in view of Bernhardt discloses removing the multiple third hierarchy level and displaying the multiple second hierarchy labels. For example, selecting a second navigational bar which is *Pipeplus* displays the sub nodes of *Pipeplus*, which are Download, Etc, Eudora, Ewan, etc, Fig. 6A. The third navigational bar is Pmail (Fig.6B), selecting the second navigational bar (Pipeplus) while the third navigational bar (Pmail) is displayed will remove the third navigational bar (column 7, lines 10-44, column 7, lines 66-column 8, lines 11, column 8, lines 43-63).

But Guerrero in view of Bernhardt does not show expressly displaying an activation icon associated with the first hierarchy label.

Chittu, On the other hand discloses a collapser layer 46, wherein the collapser collapses a selected level such as a third hierarchy level and expands or displays a selected level such as a second hierarchy level (see Chittu, Fig. 3, and paragraphs [0027], [0086] through [0091]).

Chittu, Guerrero and Bernhardt are analogous art because they are from the same field of endeavor that is manipulating hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the collapser layer (activation icon) of Chittu with path list 504 of the hierarchy tree as specified by Guerrero in view of Bernhardt.

The motivation/suggestion for doing so would have been to save space during display of hierarchical application. That is, since hierarchical nodes are represented with a collapser layer (+/-), and since unselected intermediate node (siblings) are not displayed, the hierarchical application can be displayed in a minimum display area (Chittu, [0003]).

Therefore, it would have been obvious to combine Guerrero in view of Bernhardt with Chittu to obtain the invention of claim 15.

With regard to claim 46:

Guerrero in view of Bernhardt further in view of Chittu further discloses collapsing a node of the stacked box metaphor (Chittu, paragraph [0087]). Guerrero in view of Bernhardt further in view of Chittu further discloses displaying the tree structure with the collapsed node, the children of the collapsed node and the direct ancestors of the collapsed node (Chittu, Figs. 2, 7A-H, paragraphs [0027, [0087] through [0091],

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (US Pat No 6,236,400) in view of Bernhardt et al (US Pat No 6,496,208) further in view of Lindberg et al (US Pat No 6,732,109).

With regard to claim 7:

While Guerrero in view of Bernhardt discloses a browser that is populated using HTML data structure, but Guerrero in view of Bernhardt does not disclose that the browser is populated using XML data structure.

Lindberg, on the other hand, discloses a user interface that preferably includes a browser located on a computer, and is displayed as a plurality of web pages generated from a plurality of entities in a mark up language (such as HTML or XML) (column 4, lines 64-column 5, lines 9).

Lindberg, Guerrero and Bernhardt are analogous art because they are from the same field of endeavor that is manipulating hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to replace the HTML of Guerrero in view of Bernhardt with XML of Lindberg because as specified by Lindberg any one of the markup languages can be incorporated to the browser. Furthermore, as will be appreciated by those skilled in the art, XML is a meta-markup language that provides a format better than HTML for describing structured data.

Therefore, it would have been obvious to combine Guerrero in view of Bernhardt with Lindberg to obtain the invention of claim 7.

8. Claims 3, 12-14, 20-21, 35-36, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (US Pat No 6,236,400) in view of Bernhardt et al (US Pat No 6,496,208) further in view of Janes et al (US Pat No 6,642,946).

With regard to claim 3:

Guerrero in view of Bernhardt discloses that the vertical browser display a file system Fig.1, 102 that allows a user to categorize or group files. As

illustrated in Figs. 6A-F, a representation of hierarchical file structure is grouped vertically into several different (non-homogeneous) directories or hierarchy levels (such as *Root node (/) to Pipeplus, Pmail, and Resource*) and the directories or hierarchy levels includes uniform (homogeneous) attributes, that is selectable child documents or leaf nodes (index) (column 6, lines 27-46, Fig. 6C, 506).

But Guerrero in view of Bernhardt fails to display one or more tabs associated with the one or more attributes or choices 506, Fig. 6C of the information.

Janes, however discloses tabs associated with one or more nodes or attributes (see Figs. 4A and 4B).

Jones, Guerrero and Bernhardt are analogous art because they are from the same field of endeavor that is manipulating hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the designated selectable bar icons of Guerrero in view of Bernhardt with multiple index tabs because the tabbed index pages provide data summaries and details of the tree node selected by the user. Furthermore, the user is able to easily navigate through the data and obtain snap shots of the data presented in meaningful ways (see Janes, column 14, lines 3-10).

Therefore, it would have been obvious to combine Guerrero in view of Bernhardt with Janes to obtain the invention of claim 3.

With regard to claim 12:

As illustrated in Figs. 6A-6E, Guerrero in view of Bernhardt discloses a user interface 502 displaying hierarchical file system information, wherein activation of any one of the choices list 506 (second hierarchy) displays the information associated with the activated label (column 2, lines 3-10), also as illustrated in Fig. 6C, the information indexed (610A-E) according to one or more attributes (type of document) (column 8, lines 21-52, column 9, lines 12-23).

While Guerrero in view of Bernhardt discloses displaying, and activating a node designated by selectable bar icon in the hierarchy, but Guerrero in view of Bernhardt does not disclose multiple index tabs associated with one or more of the attributes. Janes, on the other hand, discloses multiple tabs associated with one or more nodes or attribute of a node (see Figs. 4A and 4B).

Jones, Guerrero and Bernhardt are analogous art because they are from the same field of endeavor that is manipulating hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the designated selectable bar icons of Guerrero in view of Bernhardt with multiple index tabs because the tabbed index pages provide data summaries and details of the tree node selected by the user. Furthermore, the user is able to easily navigate through the data and obtain snap shots of the data presented in meaningful ways (see Janes, column 14, lines 3-10).

Therefore, it would have been obvious to combine Guerrero in view of Bernhardt with Janes to obtain the invention of claim 12.

With regard to claim 13:

As shown in Figs. 6A-E, Guerrero in view of Bernhardt further in view of Janes further discloses that the one or more of the displayed hierarchy levels are stacked as navigation bars from a root level to a lowest hierarchy level (see Guerrero, path list 504, Figs. 6A-E).

With regard to claim 14:

Again, as illustrated in Figs. 6A-E, Guerrero in view of Bernhardt further in view of Janes further discloses that the displayed information is stacked below the lowest hierarchy level. For example, as shown in Fig. 6C, the lowest hierarchy level is *Resource* (608D), and information (610A-E) is stacked below the lowest hierarchy level (see Guerrero, column 8, lines 21-33).

With regard to claim 20:

Guerrero in view of Bernhardt further in view of Janes discloses information is further indexed by an attribute (see Janes, Figs. 2F-J, 4A-B, 10A-B) the user interface further having multiple index tabs associated with the information and operable to display information having the attribute (see Janes, Figs. 2F-J, 4A-B, 10A-B).

With regard to claim 21:

Guerrero in view of Bernhardt further in view of Janes discloses the user interface (browser **502**) further having a scroll bar **624** associated with the

information and operable to scroll through the information without affecting the presentation of the stacked nodes (see Guerrero, Figs. 6A-E).

With regard to claim 35:

Guerrero in view of Bernhardt further in view of Janes discloses that the data is represented by tabs associated with the one or more attributes (see Janes, Figs. 2F-J, 4A-B, 10A-B).

With regard to claim 36:

Guerrero in view of Bernhardt further in view of Janes further discloses that the selection of a tab displays data associated with the tab and conceals other data associated with the selected descendant node (see Janes, Figs. 2F-J, 4A-B, 10A-B).

With regard to claim 40:

Guerrero in view of Bernhardt further in view of Janes discloses that indices are represented by a tab (see Janes, Figs. 2F-J, 4A-B, 10A-B).

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guerrero (US Pat No 6,236,400) in view of Bernhardt et al (US Pat No 6,496,208) further in view of Janes et al (US Pat No 6,642,946) as applied to claim 12 above, and further in view of Chittu et al (US Pub No 2002/0107892).

Guerrero in view of Bernhardt further in view of Janes discloses a navigational bar (Guerrero, Figs. 6A-E). Guerrero in view of Janes also discloses that the navigation bar is selectable as illustrated via position indicator, or marquee 622 (e.g., a dotted line marquee, is used to indicate the

current position of the "cursor". Guerrero in view of Bernhardt further in view of Janes further discloses removing the multiple third hierarchy level and displaying the multiple second hierarchy labels. For example, selecting a second navigational bar which is *Pipeplus* displays the sub nodes of *Pipeplus*, which are *Download, Etc, Eudora, Ewan*, etc, Fig. 6A). The third navigational bar is Pmail, selecting the second navigational bar (Pipeplus) while the third navigational bar (Pmail) is displayed will remove the third navigational bar (Guerrero, column 7, lines 10-44, column 7, lines 66-column 8, lines 11, column 8, lines 43-63).

But Guerrero in view of Bernhardt further in view of Janes does not show expressly displaying, and activating an activation icon.

Chittu, on the other hand discloses a dynamic tree control system. The dynamic tree control system includes among other things, one or more tree node layers. Each tree node layer in turn can contain a collapser layer 46 (activation icon), a node icon layer, and a caption on label layer (Chittu, Fig. 3). The collapser layer 46 when activated displays the hierarchy level associated with the sub-node of the navigation bar (see paragraphs [0087]).

Chittu, Guerrero, Janes and Bernhardt are analogous art because they are from the same field of endeavor that is manipulating hierarchical tree structure.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the collapser layer (activation icon) of

Chittu with path list 504 of the hierarchy tree as specified by Guerrero in view of Bernhardt further in view of Janes.

The motivation/suggestion for doing so would have been to save space during display of hierarchical application. That is, since hierarchical nodes are represented with a collapser layer (+/-), and since unselected intermediate node (siblings) are not displayed, the hierarchical application can be displayed in a minimum display area (Chittu, [0003]).

Therefore, it would have been obvious to combine Guerrero, Bernhardt and Janes with Chittu to obtain the invention of claim 16.

Response to Arguments

10. Applicants' arguments filed on April 27, 2006 have been fully considered but they are not persuasive. The applicants traversed the rejection and argued that the prior art of records do not teach the claimed subject matter of independent claims 1, 11, 18, 22, 28, 38, and 43. The Applicants also traversed the rejection made to the dependent claims and argued that the prior art of records do not teach the claimed subject matter of the dependent claims. The examiner disagrees with the Applicants' remarks arguments.

With regard to claim 1 rejection, the applicants argued that Guerrero in combination with Bernhardt fails to teach or suggest "multiple sub-node navigation bars stacked below the root node navigation bar each sub-node navigation bar representing a sub-node from a selected level of the multiple hierarchy levels, wherein multiple sub-nodes represent database classifiers of

database objects and a plurality sub-nodes in the multiple hierarchy levels represent the same database classifier representing the same database object... and each displayed sub-node represents a distinct classifier in the path."

In contrast to the applicants' argument, Guerrero in combination with Bernhardt teach the claimed subject matter of claim 1. As given rejection above to claim 1, Guerrero discloses a user interface (vertical browser, **502,** Figs. 5, and 6A-F) for displaying information organized with multiple hierarchy levels (column 6, lines 27-46). The user interface (vertical browser) further includes a root node navigation bar (**608A,** Figs. 6A, 6B, 6D, and 6E) representing the root hierarchy level (column 7, lines 18-25). The user interface also includes multiple sub-node navigation bars (**608B, 608C**, Fig. 6B) stacked below the root node navigation bar, each sub-node navigation bar representing a sub-node from a selected level of the multiple hierarchy levels (column 8, lines 12-21. Furthermore, Guerrero describes that hierarchical information is displayed efficiently such that information that is no longer needed is not displayed (column 3, lines 38-47). Although Guerrero suggests that his invention can be used to display any type of hierarchical information, But Guerrero does not clearly describe displaying database classifiers as recited in claim 1. However, Bernhardt teaches a tree structure having multiple sub-node could depict in either data format, i.e., a directory structure of a computer file system could depict in a classifier of a database, and vise versa (column 7, lines 27-41). Thus, Guerrero in combination with Bernhardt teaches displaying

structure of a database classifier, which organizes data in a tree (Bernhardt, Abstract), wherein each node in a tree has its own identifiable label or distinct identifier (Abstract). For example, as illustrated in Fig. 5, a multiple sub-nodes represent the data base classifier of objects (col. 6, lines 63-col. 7, lines 41). Bernhardt further describes and illustrates a plurality of sub-nodes in the multiple hierarchy levels represent the same database classifier representing the same database object (col. 7, lines 2-41). As described in cited column, the database classifier uses color-coding scheme to each node and sub-node to indicate similarity or relation between the nodes or sub-nodes (See darker color in Fig. 5). Bernhardt also describes score of the node as a relative indication. Furthermore Bernhardt and Guerrero are analogous art, i.e., organizing and representing information in a hierarchical tree structure. Guerrero in combination with Bernhardt teach the claimed and argued subject matter of claim 1.

Similarly, with regard to claim 11 rejection, the Applicants argued that Guerrero in combination with Bernhardt fails to teach or suggest "wherein multiple database classifier labels represent database objects and a plurality of database classifier labels in multiple hierarchy branches are the same database classifier label representing the same database object... and each displayed classifier label is displayed only once in each displayed hierarchy."

In contrast to the applicants' argument, Guerrero in combination with Bernhardt teach the argued limitations of claim 11. For example, as described

in col. 7, lines 2-41, Bernhardt describes that the database classifier uses different attributes of each node and sub-node such as score, color coding to indicate similarity or relation between the nodes or sub-nodes (See darker color in Fig. 5).

With regard to claim 18 rejection, the applicants argued that "a control interfaced with the database and the display, the control operable to generate a user interface for presentation on the display, the user interface having the root node and predetermined sub-nodes stacked from highest to lowest hierarchy levels, the user interface further operable to hide predetermined sub-nodes that are not relevant to the sub-node having the lowest hierarchy level, wherein multiple sub-nodes represent database classifiers of database objects and a plurality of sub-nodes in the multiple hierarchy levels are the same database classifier representing the same database object, and each displayed sub-node represents a distinct classifier."

In contrast to the applicants' argument, Guerrero in combination with Bernhardt teach the argued limitations of claim 18. Again, as given response to the augment raised in claim 1, Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (See darker color in Fig. 5). Thus, Guerrero in combination with Bernhardt teaches displaying

structure of a database classifier, which organizes data in a tree (Bernhardt, Abstract), wherein each node in a tree has its own identifiable label or distinct identifier (Bernhardt, Abstract).

With regard to claim 22 rejection, the applicants argued that "instructions stored on the storage medium, the instructions operable to command a computer to display selected nodes from first, second or third hierarchy levels, the instructions selecting for display the nodes of the first and second hierarchy levels display only the nodes of the first and second hierarchy levels on a traversed path to the third hierarchy level, wherein multiple nodes represent database classifiers of database objects and a plurality nodes in the hierarchy levels represent the same database classifier representing the same database object, and each displayed node represents a distinct classifier."

In contrast to the applicants' argument, Guerrero in combination with Bernhardt teach the argued limitations of claim 22. Again, as given response to the augment raised in claim 1, Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41). Thus, Guerrero in combination with Bernhardt teaches displaying structure of a database classifier, which

organizes data in a tree (Bernhardt, Abstract), wherein each node in a tree has its own identifiable label or distinct identifier (Bernhardt, Abstract).

With regard to claim 28 rejection, the applicants argued that "wherein multiple descendant nodes represent database classifiers of database objects and a plurality of descendant nodes in the multiple hierarchy levels represent the same database classifier representing the same database objects, and each displayed node represents a distinct classifier."

In contrast to the applicants' argument, Guerrero in combination with Bernhardt teach the argued limitations of claim 28. Again, as given response to the augment raised in claim 22, Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41). Thus, Guerrero in combination with Bernhardt teaches displaying structure of a database classifier, which organizes data in a tree (Bernhardt, Abstract), wherein each node in a tree has its own identifiable label or distinct identifier (Bernhardt, Abstract).

With regard to claim 38 rejection, the applicants argued, "wherein multiple sibling nodes represent database classifiers of database objects and a

plurality of sibling nodes in the hierarchy levels represent the same database classifier representing the same database object, and the selected node, the ancestors of the selected node, and any children of the selected node represent distinct classifiers."

In contrast to the applicants' argument, Guerrero in combination with Bernhardt teach the argued limitations of claim 38. Again, as given response to the augment raised in claim 22, Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41). Thus, Guerrero in combination with Bernhardt teaches displaying structure of a database classifier, which organizes data in a tree (Bernhardt, Abstract), wherein each node in a tree has its own identifiable label or distinct identifier (Bernhardt, Abstract).

With regard to claim 43 rejection, the applicants argued, "wherein the displayed tree structure represents distinct database classifiers ... wherein multiple sibling nodes represent database classifiers of database objects and a plurality of sibling nodes in the hierarchy levels represent the same database classifier representing the same database object."

In contrast to the applicants' argument, Guerrero in combination with Bernhardt teach the argued limitations of claim 43. Again, as given response to the augment raised in claim 22, Bernhardt describes that the database classifier uses several attributes satisfying different branches of the classifier tree. For example score of the node and sub-node to determine relation or similarity between nodes or between sub-nodes. Another example is color-coding to indicate similarity or relation between the nodes or sub-nodes (Bernhardt, see color-coding in Fig. 5, Col. 7, lines 2-41). Thus, Guerrero in combination with Bernhardt teaches displaying structure of a database classifier, which organizes data in a tree (Bernhardt, Abstract), wherein each node in a tree has its own identifiable label or distinct identifier (Bernhardt, Abstract).

With regard to dependent claims rejection, the applicants disagree with the rejection made to the dependent claims and respectfully request withdrawal of the rejection of the dependent claims for at least the same reasons as the independent claims upon which each indirectly or directly depends.

In contrast to the applicants' argument, since Guerrero in combination with Bernhardt teach the subject matter of all independent claims and dependent claims, the rejection still holds.

Having fully addressed the applicants' arguments, the rejection still stands.

Conclusion

11. Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the spec6ed citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and Figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

12. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tadesse Hailu, whose telephone number is (571) 272-4051. The Examiner can normally be reached on M-F from 10:30 – 7:00 ET. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kincaid, Kristine, can be reached at (571) 272-4063 Art Unit 2173 and 2174.

Examiner Tadesse Hailu

Art Unit 2173

3/16/07

TADESSE HAILU
Patent Examiner